

CLAIMS

What is claimed is:

1. A surgical assembly comprising:

5 a surgical passer having a wire portion coupled to a handle, the wire portion having a free distal end, having an outer periphery, and having at least one recess therein in a distal end region;

10 a tube element having a proximal end, a tissue penetrating distal end, and a channel extending therein from an opening at the proximal end and defined by an inner periphery, the channel having at least one projection projecting outwardly into the channel in a distal end region thereof;

15 wherein the outer periphery of the surgical passer is dimensioned relative to the inner periphery of the channel of the tube element so that the surgical passer is positionable within the tube element, and wherein, when so positioned, the at least one tube element projection engages the at least one surgical passer recess to removably couple the surgical passer to the tube element.

20 2. The surgical assembly according to claim 1, wherein there is substantially no interference between the surgical passer and tube element other than from the at least one tube element projection.

25 3. The surgical assembly according to claim 2, wherein the at least one projection is sufficiently smaller than the corresponding recess so as to allow sterilization gas present within the channel to freely pass into a region of the channel distal of the at least one projection.

4. The surgical assembly according to claim 3, wherein the at least one recess has a depth of at least approximately 0.05 mm, and the at least one projection has a height of at least approximately 0.1 mm.

5 5. The surgical assembly according to claim 4, wherein the at least one recess has a radius of at least approximately 0.1 mm and the at least one projection has a radius of at least approximately 0.1 mm.

6. The surgical assembly according to claim 3, wherein the surgical passer is
10 comprised of stainless steel and the tube element is comprised of a medical grade plastic selected from the group consisting of urethane, polyethylene, and polypropylene.

7. The surgical assembly according to claim 1, wherein a leading edge of the
15 surgical passer has a radius of at least 0.1 mm.

8. The surgical assembly according to claim 1, wherein a leading edge of the surgical passer is chamfered.

20 9. The surgical assembly according to claim 1, wherein the at least one recess is between 0.5 and 120 mm proximal of the distal end of the surgical passer.

10. The surgical assembly according to claim 1, wherein the at least one recess is a single recess extending around a circumference of the surgical passer, and the
25 at least one projection is a single projection extending around the diameter of the channel.

11. The surgical assembly according to claim 1, wherein the at least recess is a single recess extending around a circumference of the surgical passer, and the at

least one projection is a plurality of projections spaced apart about the diameter of the channel.

5 12. The surgical assembly according to claim 1, wherein the wire portion of the surgical passer has a contour, and wherein the tube element is configured to follow said surgical passer contour.

10 13. The surgical assembly according to claim 12, wherein the contour of the surgical passer is substantially helical.

14. A surgical assembly for use in implanting a tape to treat female urinary incontinence comprising:

15 a surgical passer having a wire portion coupled to a handle, at least a portion of the wire portion having a curved contour, a free distal end, an outer periphery, and having at least one recess therein in a distal end region;

20 a tube element having a proximal end coupled to the tape to be implanted, a tissue penetrating distal end, and a channel extending therein from an opening at the proximal end, the channel having an inner periphery and having at least one projection projecting outwardly into the channel in a distal end region thereof, the tube element having a configuration such that it can be removably positioned over the distal end of the surgical passer and having a contour that substantially follows
25 the contour of the surgical passer;

 wherein when the tube element is removably positioned over the distal end of the surgical passer, the at least one projection on the surgical passer engages the at least one recess in the tube element.

30

GYN-5013

15. The surgical assembly according to claim 14, wherein there is substantially no interference between the surgical passer and the tube element other than from the at least one tube element projection.

5 16. The surgical assembly according to claim 15, wherein the at least one projection is sufficiently smaller than the corresponding recess so as to allow sterilization gas present within the channel to pass freely into a region of the channel distal of the at least one projection.

10 17. The surgical assembly according to claim 16, wherein the at least one recess has a depth of approximately 0.05 mm to 1.0 mm, and the at least one projection has a height of approximately 0.1 to 0.5 mm.

15 18. The surgical assembly according to claim 14, wherein the at least one recess is a single recess extending around a circumference of the surgical passer, and the at least one projection is a single projection extending around the diameter of the channel.

20 19. The surgical assembly according to claim 14, wherein the at least recess is a single recess extending around a circumference of the surgical passer, and the at least one projection is a plurality of projections spaced apart about the diameter of the channel.

25 20. A surgical assembly for implanting a surgical element within a patient's body, the assembly comprising:

a surgical passer having a wire portion coupled to a handle, at least a portion of the wire portion having a curved contour, having a free distal end, an outer periphery, and having at least one recess therein in a distal end region;

30

GYN-5013

a tube element having a proximal end coupled to the tape to be implanted, a tissue penetrating distal end, and a channel extending therein from an opening at the proximal end, the channel having an inner periphery and a means for engaging the at least one recess in the tube element to removably couple the tube element to the surgical passer, the means for engaging being capable of withstanding a removal force of approximately 1 to 10 pounds, but allowing sterilization gas present within the channel to freely pass through to the distal end of the channel.

21. The surgical assembly according to claim 20, wherein the means for engaging is at least one projection projecting outwardly into the tube element channel.

22. The surgical assembly according to claim 20, wherein the surgical passer is comprised of stainless steel and the tube element is comprised of a medical grade plastic selected from the group consisting of urethane, polyethylene, and polypropylene.